Summary of Route Adjustment

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Since Western Minnesota Municipal Power Agency (Western Minnesota) and Missouri River Energy Services (MRES) (collectively, Applicants) filed their Facility Permit Application (Application) on August 7, 2025, the Applicants have continued to gather information for, and coordinate with agencies and landowners on, the Toronto Power Plant Project (the Project). As a result, the Applicants have made a minor adjustment to the Project's 345 kilovolt ("kV") transmission line ("Route") along 481st Avenue into the Astoria Substation owned by Otter Tail Power Company ("OTP"), with a corresponding adjustment to the 150-foot-wide right-of-way ("ROW") centered on the Route. The adjustments are generally described as follows:

(1) an adjustment to the Route where the Project's 345 kV transmission line extends south along 481st Avenue for 1.5 miles before turning southeast at 193rd Street across a row crop farm field to the Astoria Substation, with a corresponding adjustment to the ROW. A redline comparison showing this Route adjustment near the Astoria Substation compared to what was filed with the Application is attached as Figure 1.

The current Project Route and ROW including the Route adjustment noted above are depicted on updated figures provided below. The reasons for these adjustments are discussed in the Supplemental Direct Testimony of Brent Moeller.

The Route adjustment described above and in the Supplemental Direct Testimony of Brent Moeller does not significantly alter the detailed analysis of environmental and land use impacts presented in the Application. As needed, the Applicants conducted additional analysis with respect to the current Project, which includes the Route adjustment, and updates are summarized in Table 1-1 below.

Table 1-1 Updates to Environmental Analysis		
August 7, 2025, Application Environmental Analysis Section		**Current Project (updates)**
Section 1.0: Introduction	Section 1.1: Toronto Power Plant Project	Installation of an approximately 4.3-mile-long, single-circuit, 345-kV generation-tie transmission line (transmission line) to connect with the Astoria 345-kV substation owned by Otter Tail Power (OTP) Company (OTP Substation).
	Section 1.1.2.2: Transmission Line	The Route crosses or abuts 14 parcels with a total of 12 landowners.
Section 4.0: Estimated Cost of Facility (ARSD 20:10:22:09)		The current estimated cost of construction for the Project is $378 million. This includes: (1) construction of the dual fuel Power Plant and (2) costs associated with the construction of the Project's approximately 4.3-mile-long, 345-kV transmission line between the Power Plant Site and OTP Substation.
Section 6.0: General Site Description (ARSD 20:10:22:11)	Section 6.2: Transmission Line	A Transmission Line Study Area, depicted in updated Figure 4, was identified and included a larger area so that a range of Route alignments could be considered. Refer to updated Figure 5 for the Route selected.
Section 7.0: Alternative Sites and Siting Criteria (ARSD 20:10:22:12)		The following sections discuss the siting of the Power Plant Site and the range of alignments for the transmission line interconnection from the Power Plant Site and the OTP Substation (updated Figure 4).

Table 1-1 Updates to Environmental Analysis		
August 7, 2025, Application Environmental Analysis Section		**Current Project (updates)**
		Refer to updated Figure 6 for the potential Route alignments.
Section 7.0: Alternative Sites and Siting Criteria (ARSD 20:10:22:12)	Section 7.2.2: Transmission Line	Updated Table 2 compares the routing criteria for potential routes.
Section 9.0: Effect on Physical Environment (ARSD 20:10:22:14)	Section 9.1: Regional Landforms Surrounding the Project Site	Figure 7 and updated Figure 8 display the Power Plant Site and the Route on U.S. Geological Survey (USGS) topography. Updated Figure 9 illustrates the bedrock and surficial geology in the vicinity of the Power Plant Site and the Route.
	Section 9.3: Soil Types	The soil associations identified within the Power Plant Site and the Route are shown in updated Figure 10. Their designation for prime and statewide importance is shown in updated Table 6.
	Section 9.5: Physical Environment Impacts and Avoidance, Minimization, and Mitigation Measures	Construction of the Route will result in up to approximately 25.5 acres of temporary disturbance and approximately 0.045 acre of permanent disturbance to surface soils within the Route. Within the Route, 63 acres of prime farmland or farmland of statewide importance were identified.

Table 1-1 Updates to Environmental Analysis		
August 7, 2025, Application Environmental Analysis Section		**Current Project (updates)**
Section 10.0: Effects on Hydrology (ARSD 20:10:22:15)	Section 10.1: Surface Water Resources and Drainage	A detailed map of the surface waters, wetlands, and existing water drainage areas is included in updated Figure 11. Wetland delineations were completed for the Power Plant Site and the Route, see Figure 12 and updated Figure 13, respectively.
	Section 10.1.1: Surface Water Resources, Drainage Impacts, and Avoidance, Minimization, and Mitigation Measures	Other waters within the Route, defined during the field delineation, include one excavated pond associated with Wetland 7 and the suspect wetlands at three noted NHD unnamed tributaries (updated Figure 13; Appendix C).
	Section 10.2: Groundwater Resources and Supplies	Additional minor aquifers that consist of surface and near surface deposits of outwash and alluvium and those isolated, buried, and lenses of outwash are located outside of the Prairie Coteau Aquifer (updated Figure 14)
	Section 10.3: Wetlands	A total of 6.6 acres of wetlands were identified through field and desktop delineation within the Route ROW. The wetlands identified within the Power Plant Site and the Route are shown in Figure 12 and updated Figure 13, respectively.
	Section 10.3.1: Wetlands Impacts and Avoidance, Minimization, and Mitigation Measures	Currently, the Route will have no permanent impacts on wetlands. The temporary impact on wetlands is approximately 1.35 acres.

Table 1-1 Updates to Environmental Analysis		
August 7, 2025, Application Environmental Analysis Section		**Current Project (updates)**
Section 11.0: Effect on Terrestrial Ecosystems (ARSD 20:10:22:16)	Section 11.1.1: General Vegetation	Based on the USGS National Land Cover Database (NLCD) (USGS 2021), the dominant land cover within the Power Plant Site is cultivated crops (updated Figure 15). The other noted land cover class categories in the Route include herbaceous; emergent herbaceous wetlands; developed, open space; hay/pasture; barren land; developed, low intensity; and developed, medium intensity (updated Table 8). Updated Table 8 summarizes the types of land cover crossed by the Route. The existing NLCD land cover types in the vicinity of the Project are depicted in updated Figure 15.
	Section 11.1.2: Potentially Undisturbed Grasslands	Based on a review of the areas, the potentially undisturbed grasslands present in the vicinity of the Power Plant Site and the Route are shown in updated Figure 16. The Route ROW includes approximately 1.6 acres of undisturbed grasslands.
	Section 11.1.5: Terrestrial Flora Impacts and Avoidance, Minimization and Mitigation Measures	No undisturbed lands are within the Power Plant Site, as documented within the SDGFP Environmental Tool; therefore, the Power Plant will avoid impacts on these lands (updated Figure 16). Within the Route, the land cover is identified in updated Table 8. Within the Route, approximately 0.001 acres of vegetated areas will be permanently impacted, and 2.7 acres will be temporarily impacted due to construction of the Project.

Table 1-1 Updates to Environmental Analysis		
August 7, 2025, Application Environmental Analysis Section		**Current Project (updates)**
		However, the area has several undisturbed lands; therefore, full avoidance may not be possible for the transmission line (updated Figure 16).
	Section 11.2.2: Federal and State-Listed Terrestrial Species	Potential threatened and endangered species habitat within the vicinity of the Power Plant Site and the Route is shown in updated Figure 17.
	Section 11.2.2.2: Rufa Red Knot	See updated Figure 17 for the identified potential rufa red knot habitat.
	Section 11.2.2.4: Suckley's Cuckoo Bumble Bee	There are 1.6 acres of undisturbed prairie grassland (noted as three parcels in Appendix D) that provide potentially suitable habitat within the Route.
	Section 11.2.2.5: Western Regal Fritillary	There are 5.2 acres of potential western regal fritillary habitat within the Route (updated Figure 17).
Section 12.0: Effect on Aquatic Ecosystems (ARSD 20:10:22:17)	Section 12.1 Existing Aquatic Ecosystems	As discussed in Sections 10.1 and 10.3, the delineation/mapping conducted for the Aquatic Resources Delineation Report identified a total of 6.21 acres of freshwater emergent delineated/mapped wetlands within the Power Plant Site and 6.6 acres within the Route (Figure 12 and updated Figure 13). Aquatic habitat within the Power Plant Site and the Route includes drainages and unnamed tributaries associated with Cobb Creek and freshwater emergent wetlands (updated Figure 11).

Table 1-1 Updates to Environmental Analysis		
August 7, 2025, Application Environmental Analysis Section		**Current Project (updates)**
	Section 12.2 Aquatic Ecosystems Impacts and Avoidance, Minimization, and Mitigation Measures	Wetlands 1 and 2 will be avoided by all Project activities, while Wetlands 3 and 4 will potentially be utilized for surface runoff capture, by minimally grading the two areas (Figure 12 and updated Figure 13).
Section 13.0: Land Use (ARSD 20:10:22:18)		Existing land use in the vicinity of the Power Plant Site and the Route, using the land use classifications in ARSD 20:10:22:18, is shown in updated Figure 15.
Section 13.0: Land Use (ARSD 20:10:22:18)	Section 13.1: Existing Land Use	The herbaceous cover refers mainly to the area in the southeast corner of the Power Plant Site, shown in updated Figure 15. The following land use classifications from ARSD 20:10:22:18(1) occur in the vicinity of the Route (updated Figure 15): • Haylands • Land used primarily for row and non-row crops in rotation • Pasturelands and rangelands • Public, commercial, and institutional use • Rural residences and farmsteads, family farms, and ranches • Undisturbed native grasslands There are 5 residences and 3 businesses (Rogness Truck & Equipment, Crooks Collision, and Premier Seed Solutions) within the Transmission Study Area (updated Figure 6).

Table 1-1 Updates to Environmental Analysis		
August 7, 2025, Application Environmental Analysis Section		**Current Project (updates)**
	Section 13.4.1 Existing Land Use	For the transmission line, updated Table 8 displays the land cover within a 500-foot-wide corridor of the Route. Construction of the Project will result in the conversion of a very small amount of land (0.02 acre) from existing agricultural land to use for transmission line structures. Approximately 25.5 acres will be temporarily impacted by construction of the Project within the Route, including laydown areas and temporary access for construction equipment to get to the proposed transmission structure locations. Less than 0.02 acre of agricultural land will be permanently impacted for the placement of the transmission line structures.
Section 17.0: Community Impact (ARSD 20:10:22:23)	Section 17.6.1: Existing Conditions	Updated Figure 18 displays the areas that have been previously surveyed.
Section 21.0: Transmission Facility Layout and Construction (ARSD 20:10:22:34)	Section 21.3: Temporary Use Areas	• Potentially undisturbed grasslands (as depicted in updated Figure 16) will be avoided to the extent possible.
Section 22.0: Information Concerning Transmission Facility (ARSD 20:10:22:35)	Section 22.1: Proposed Transmission Facility and Layout	The Project is expected to require up to 25 transmission structures with spans ranging from 400 to 1,500 feet, but this may vary depending on geological, environmental, or engineering constraints identified during micro-siting.

The updated tables referenced above are provided herein.

Table 1. Summary of Route Criteria

Criteria	Route 1 (Proposed Route)	Route 2	Route 3
Residences within 500 feet of transmission line centerline	0	2	2
Avoids WPAs	Runs adjacent to WPA; avoids direct impacts	Avoids Areas	Avoids Areas
Avoids USFWS wetland and grassland easements	Runs adjacent to USFWS wetland easement; avoids direct impacts	Avoids Areas	Avoids Areas
Crossing Undisturbed Grasslands (Acreage within 150 Foot Corridor)	1.6	21.40	24.60
Length of Transmission Line (Miles)	4.27	3.90	4.14

Table 6. Soil Associations with the Route

Soil Name	Soil Symbol Type	Area Coverage (Acres)	Farmland Classification
Barnes-Buse loams, coteau, 2 to 6 percent slopes	BcB	15.4	All areas are prime farmland
Barnes-Buse-Svea loams, 2 to 15 percent slopes	BgD	0.9	N/A
Barnes-Svea loams, 1 to 6 percent slopes	BkB	5.5	All areas are prime farmland
Barnes-Svea-Buse loams, 2 to 9 percent slopes	Bmc	3.8	Farmland of statewide importance
Hamerly-Badger complex, 0 to 2 percent slopes	Hm	19.9	Farmland of statewide importance

Soil Name	Soil Symbol Type	Area Coverage (Acres)	Farmland Classification
Lamoure-Rauville silty clay loams, channeled	Lr	3.4	N/A
Lowe loam	Lw	4.6	Prime farmland if drained
Parnell silty clay loam	Pa	0	N/A
Poinsett-Waubay silty clay loams, 0 to 2 percent slopes	PwA	1.5	All areas are prime farmland
Poinsett-Waubay silty clay loams, 1 to 6 percent slopes	PwB	0.3	All areas are prime farmland
Singsaas-Waubay silty clay loams, 1 to 6 percent slopes	ShB	16.6	All areas are prime farmland
Southam silty clay loam, 0 to 1 percent slopes	So	0.1	N/A
Lamoure silty clay loam, coteau, 0 to 1 percent slopes, occasionally flooded	Z152A	6	Prime farmland if drained
	Total	78	

*Slightly higher than 78 due to rounding.

Table 8. Land Cover Use in Route (NLCD, 2021)

NLCD Cover Class	Area Coverage (Acres)	Coverage (Percentage)
Developed, Open Space	20.56	26%
Developed, Low Intensity	0.44	1%
Barren Land	0.43	1%
Herbaceous	6.51	8%
Hay/Pasture	0.69	1%
Cultivated Crops	48.35	62%
Emergent Herbaceous Wetlands	0.9	1%
Total	77.7	100

*Slightly higher than 100% due to rounding.

Figure 1. Redline comparison of Route adjustment compared to the Application

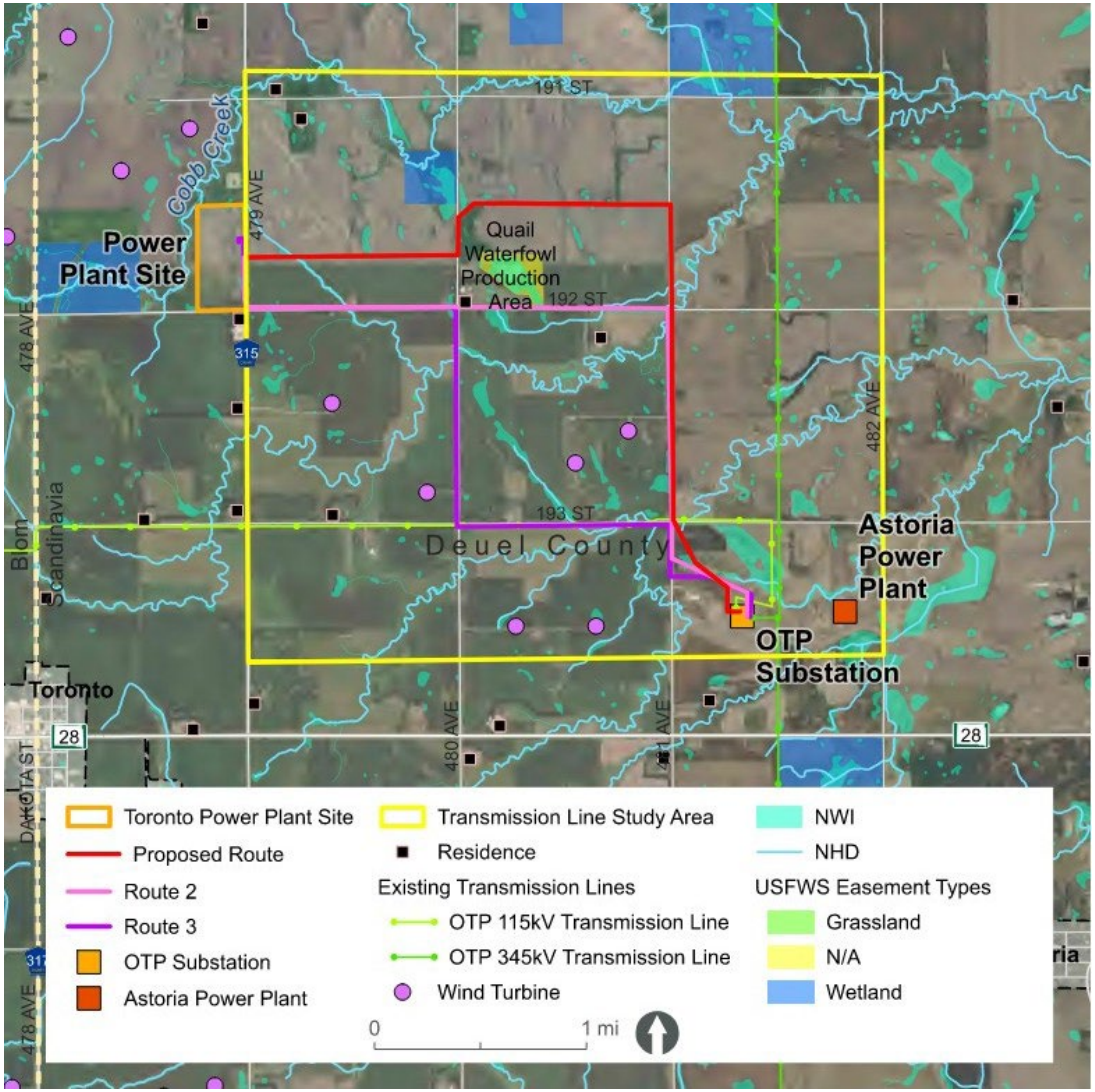

Figure 4. Alignments Considered within the Transmission Line Study Area

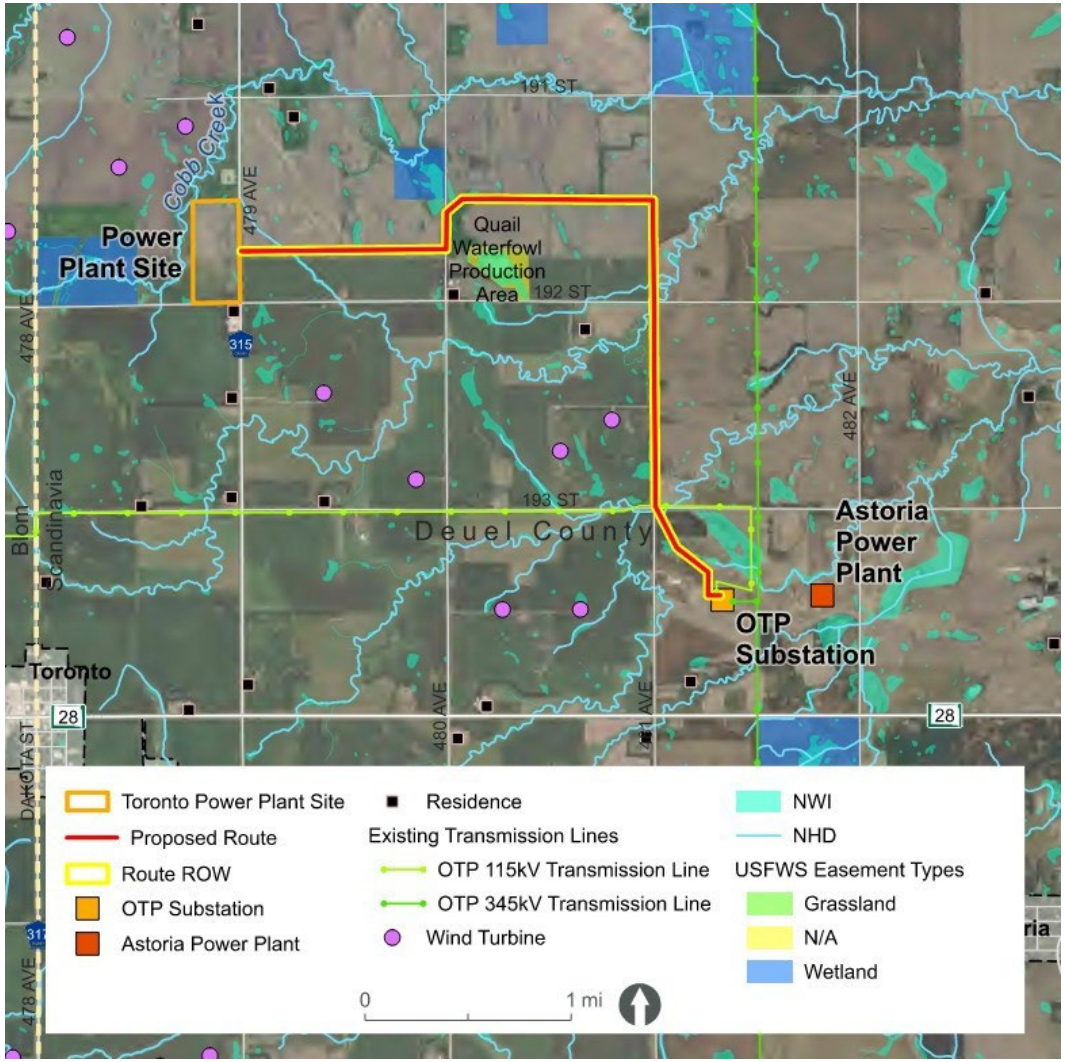

Figure 5. Route Selected

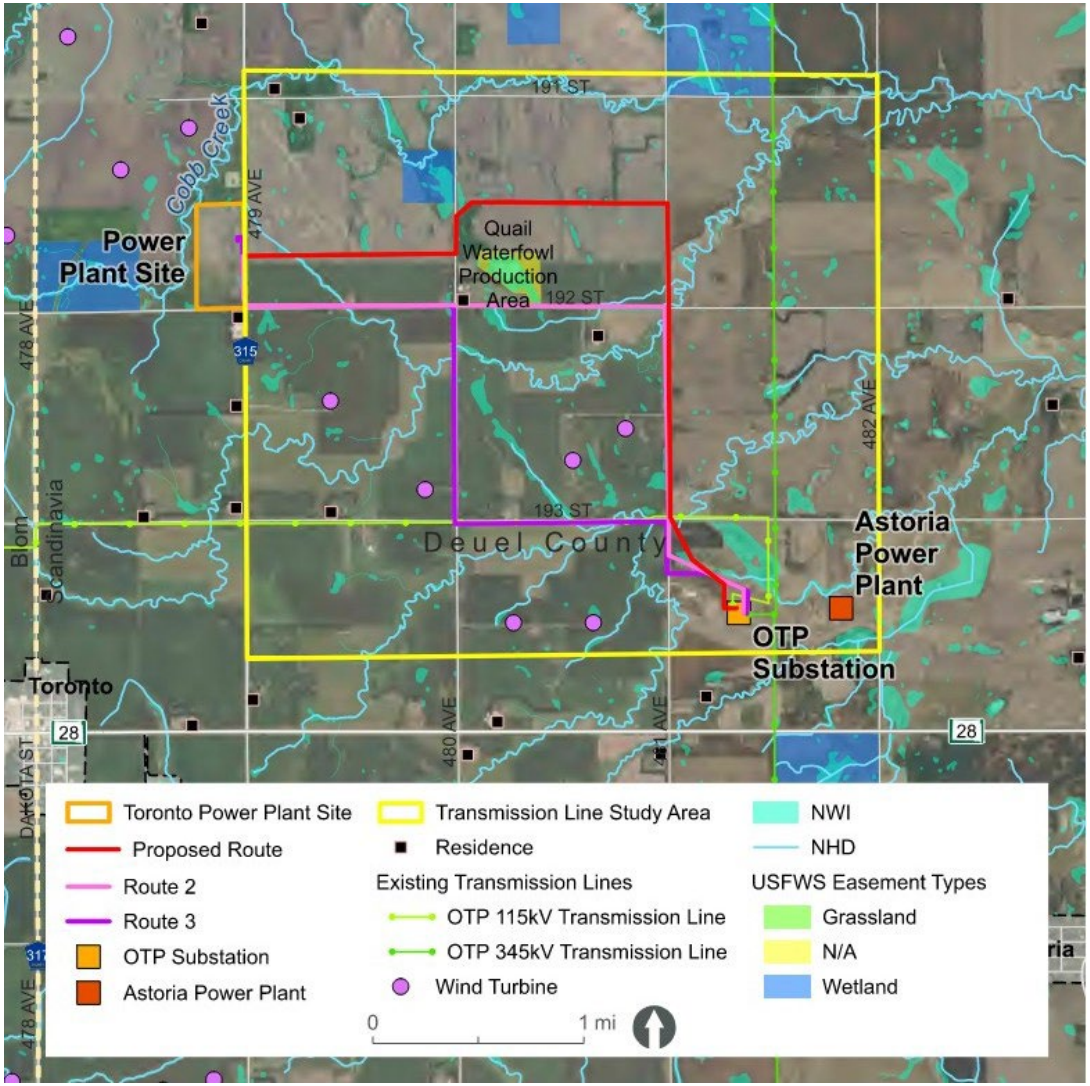

Figure 6. Transmission Line Study Area and Routes Considered

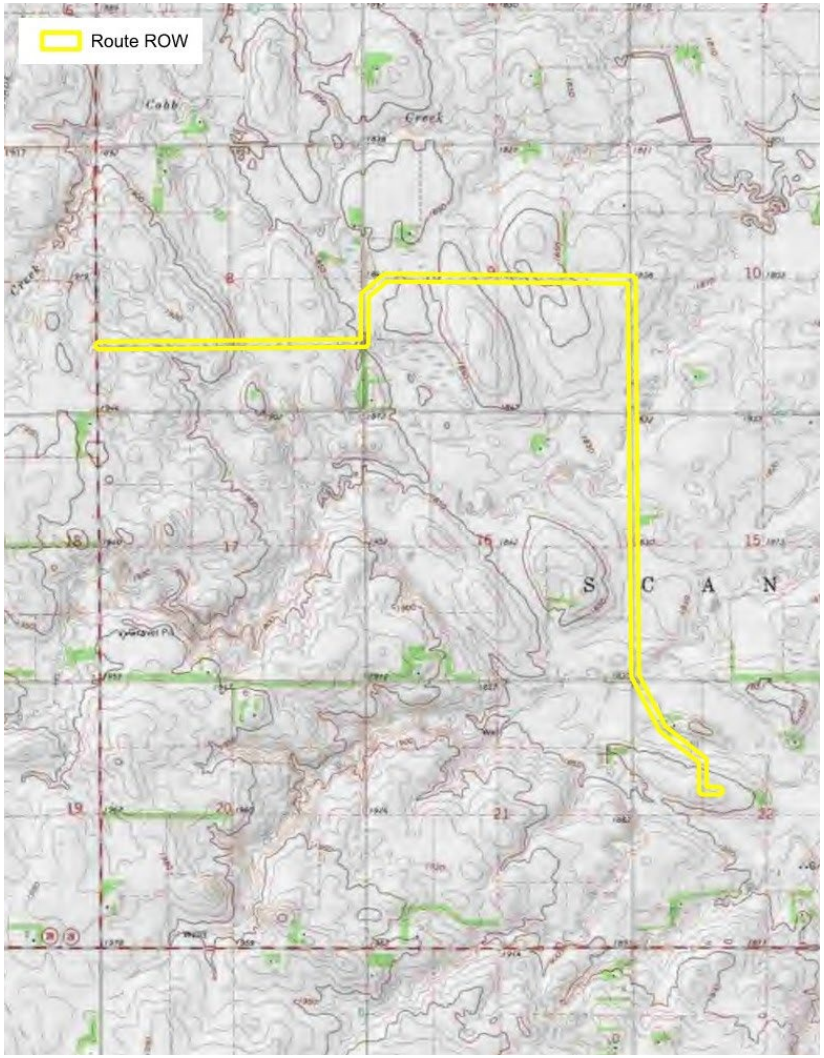

Figure 8. Route on U.S. Geological Survey Topography

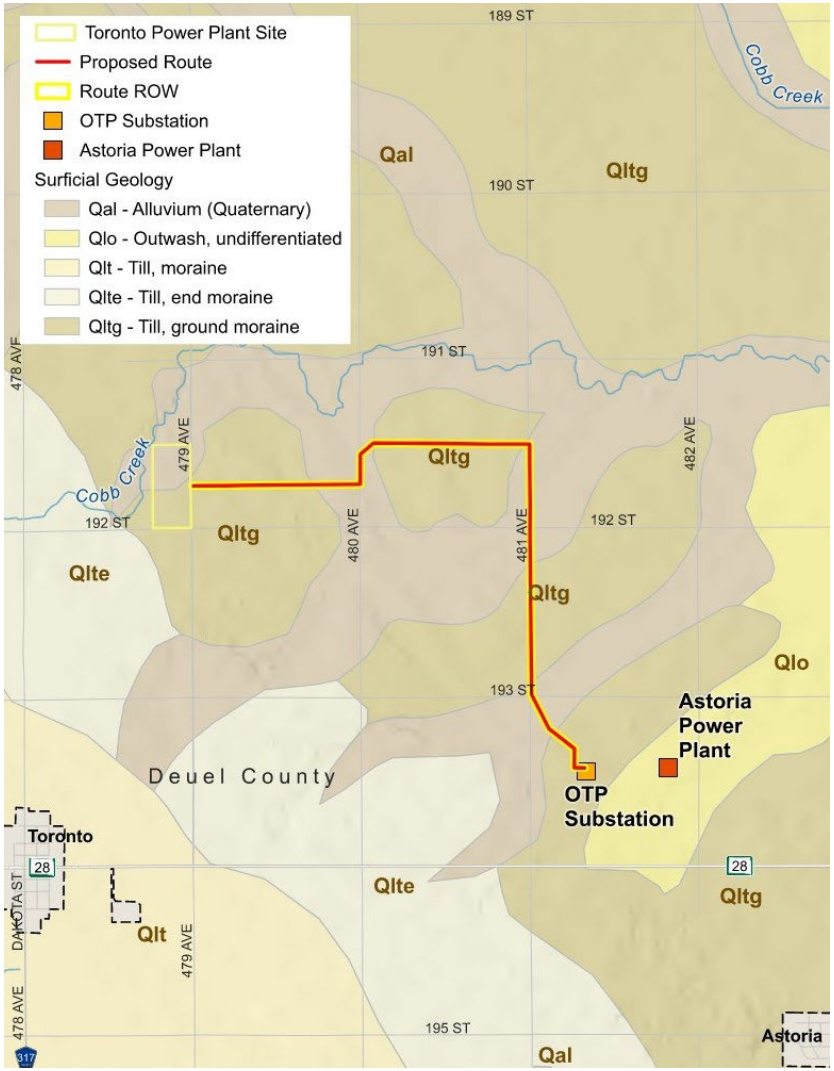

Figure 9. Bedrock and Surficial Geology

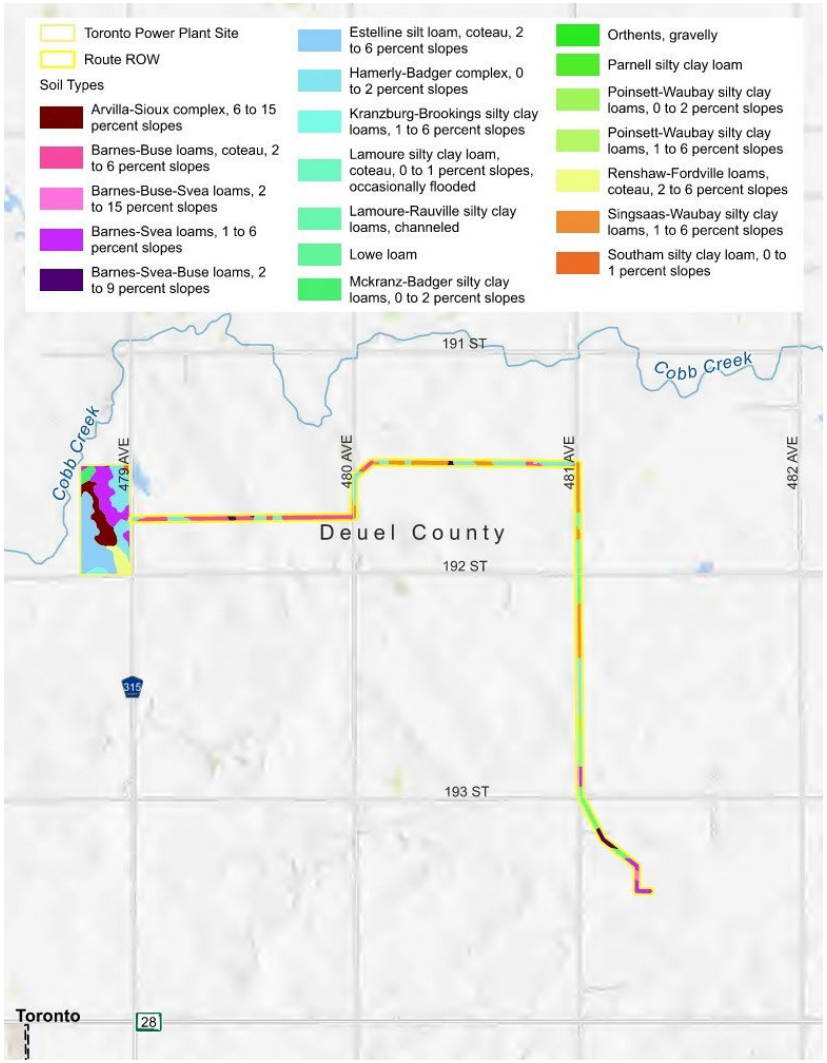

Figure 10. Soil Types

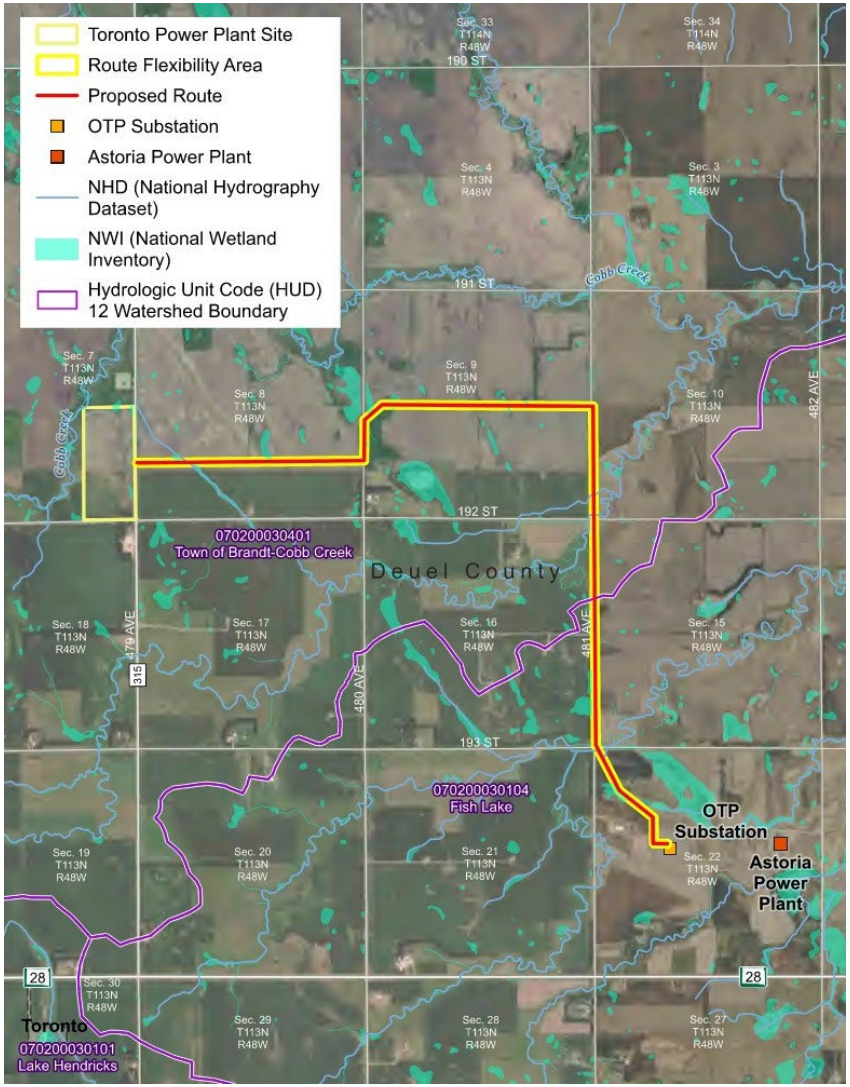

Figure 11. Surface Hydrology and Watersheds

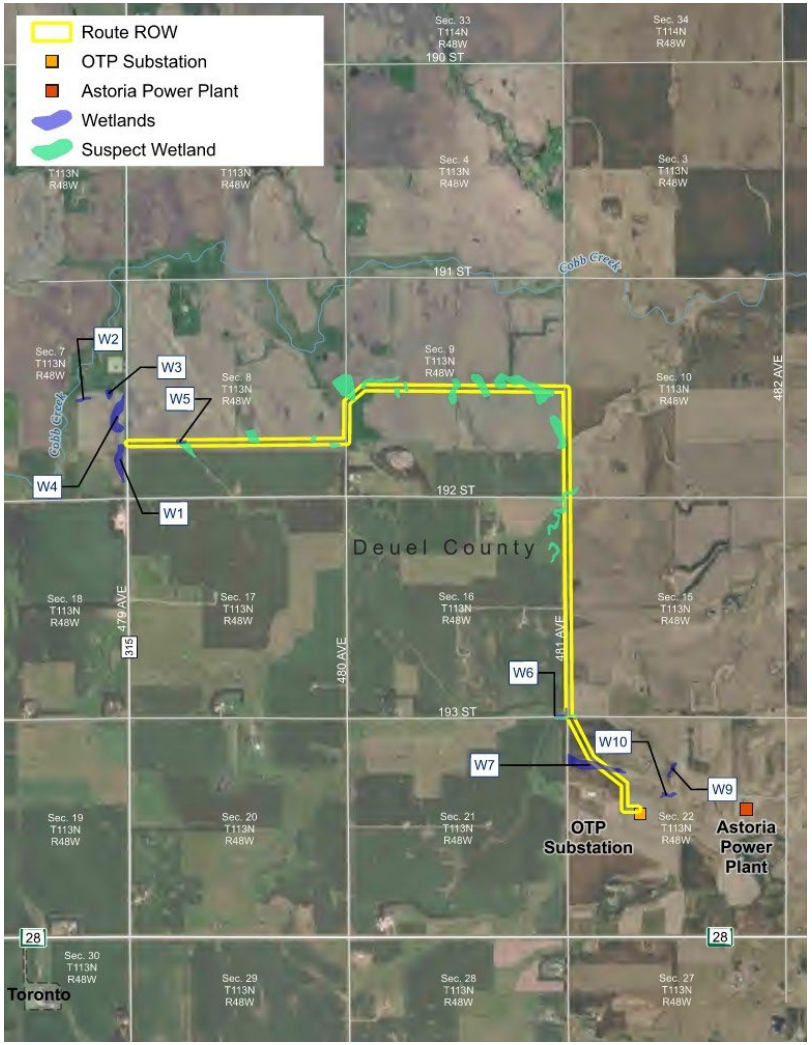

Figure 13. Route Delineated Wetlands

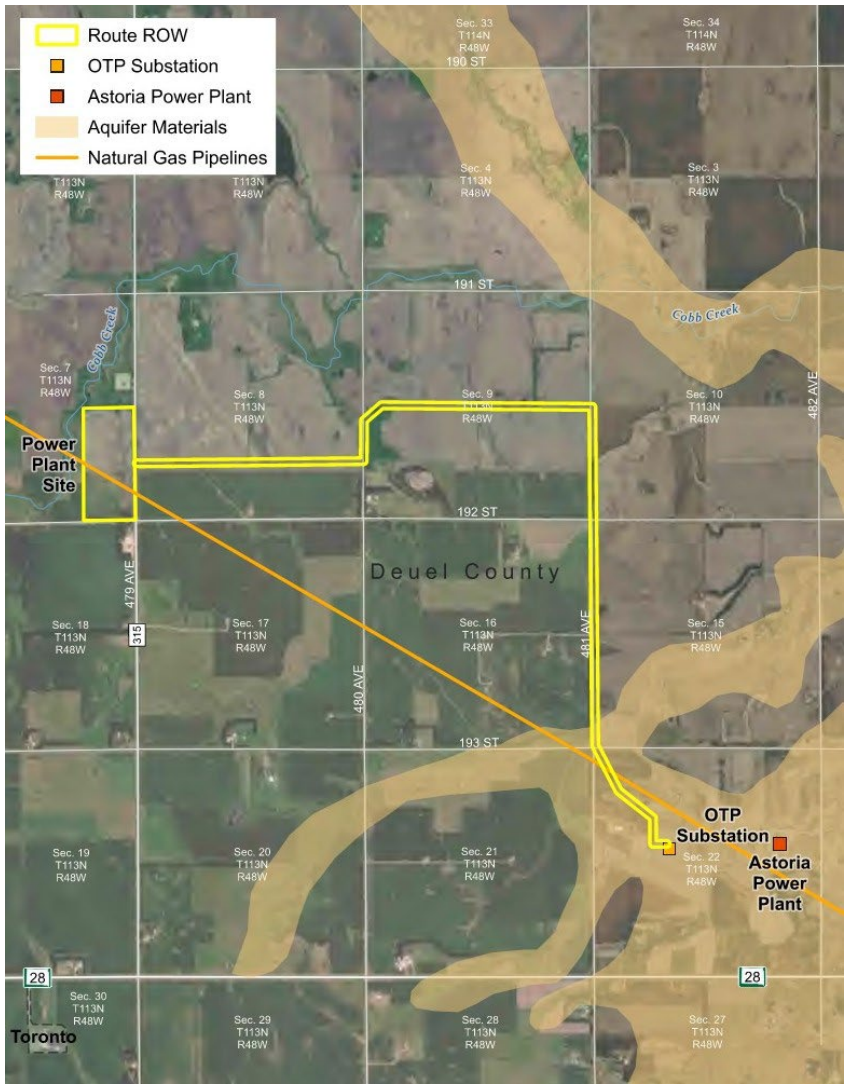

Figure 14. Aquifer Materials

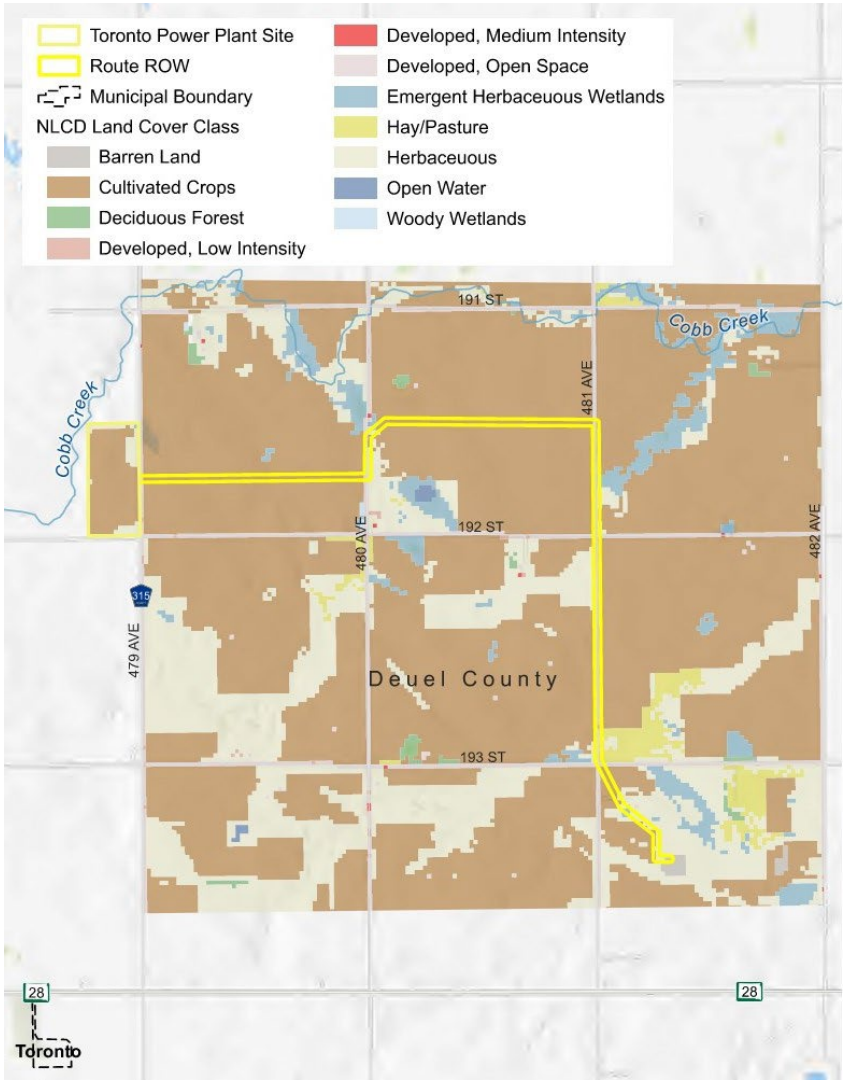

Figure 15. USGS National Landcover Dataset

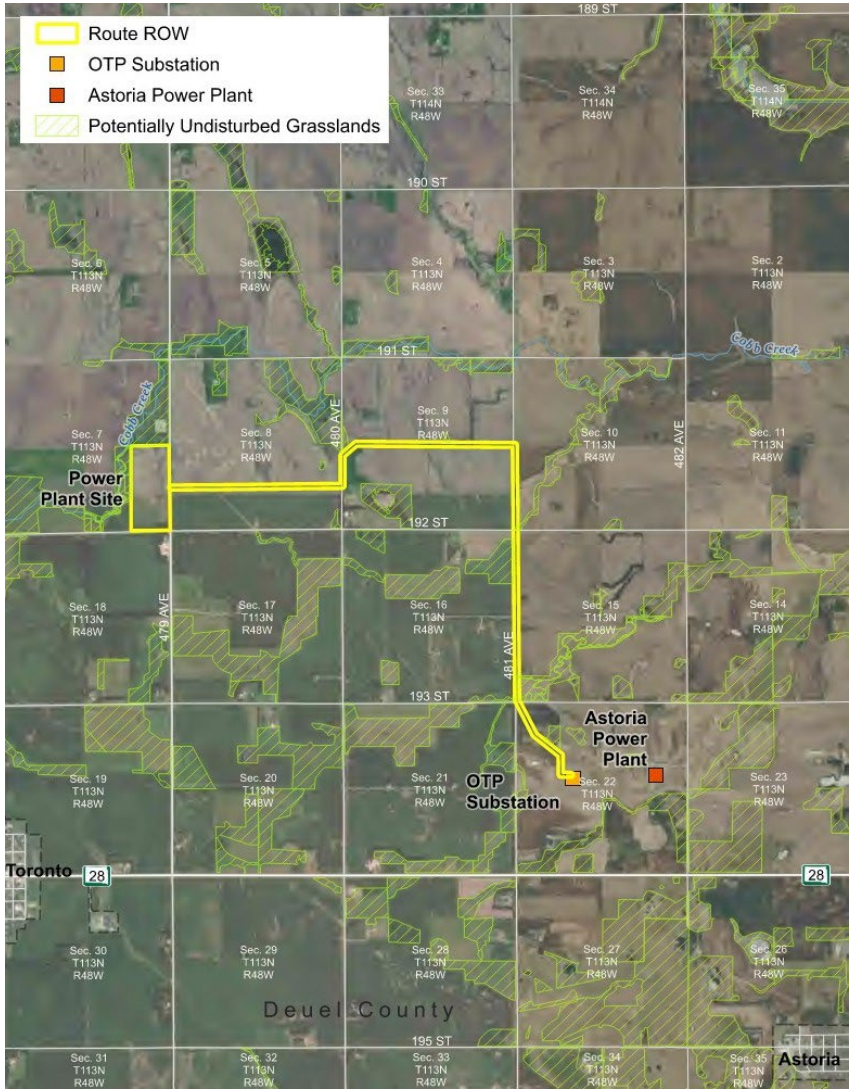

Figure 16. Potentially Undisturbed Grasslands

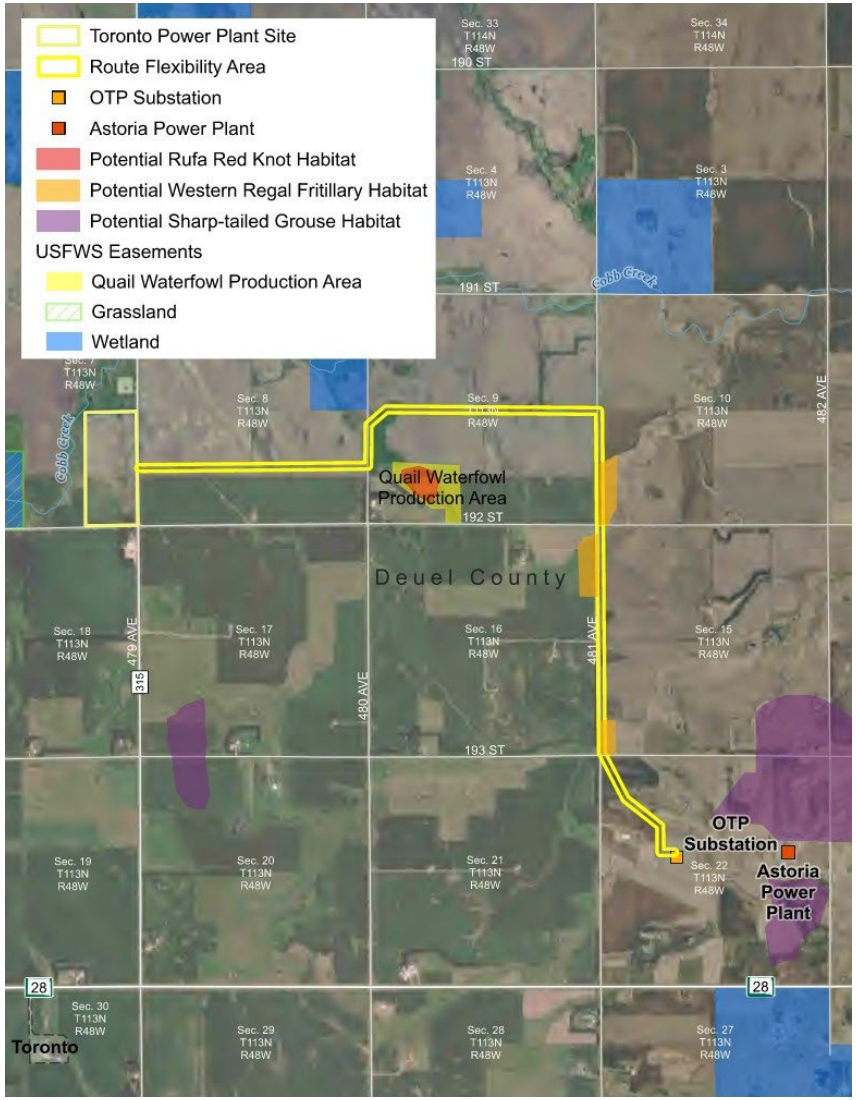

Figure 17. Habitat

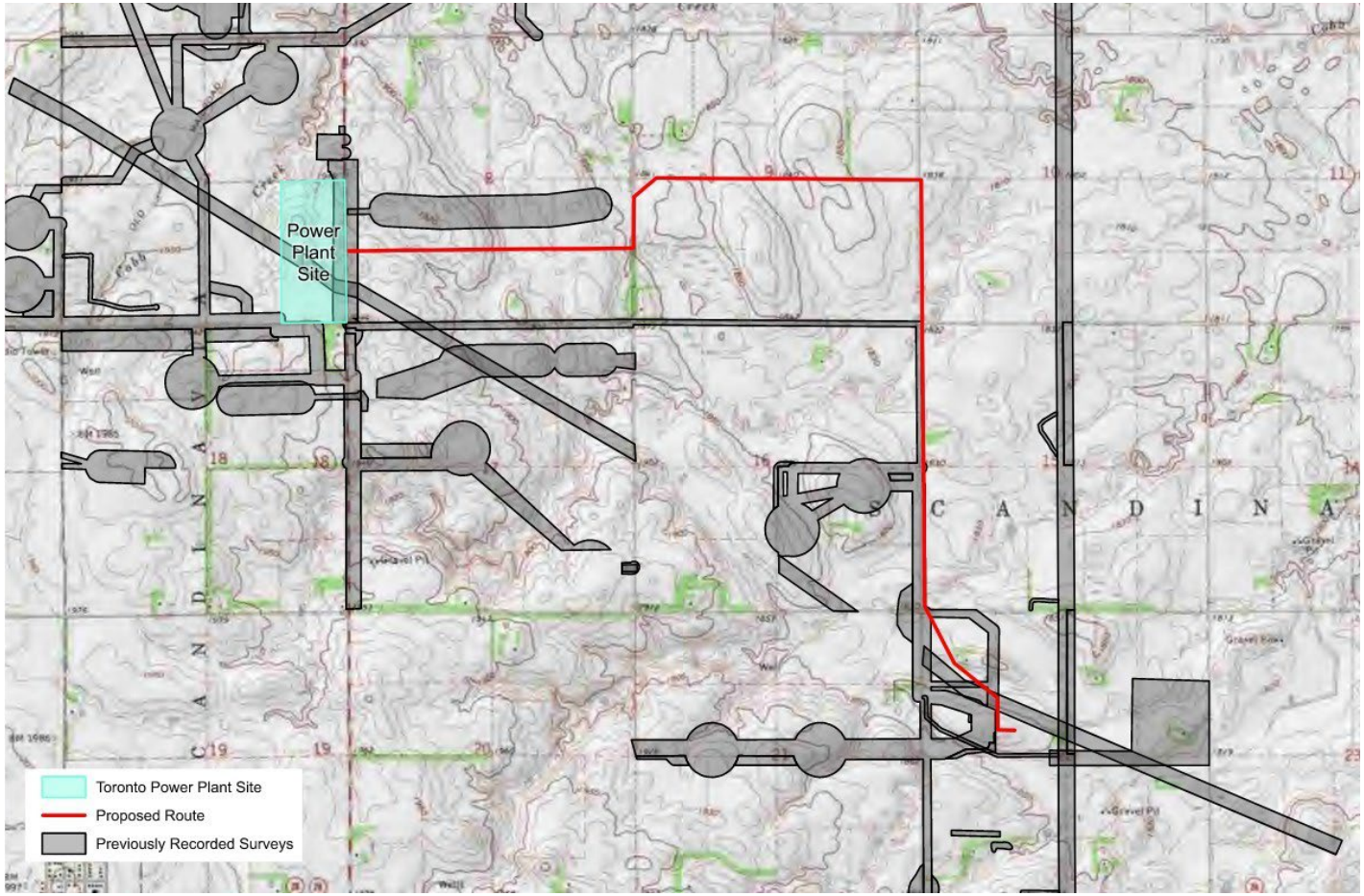

Figure 18. Previously Recorded Sites and Surveys